

**ATTACHMENT 1****KONICA MINOLTA TECHNOSEARCH CO., LTD.**

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P6214-001-0000  
KOT-0081**ATTACHMENT****Tokuyama Aluminum nitride(AlN) home page:**

Uniform quality, large-sized AlN ceramics. You can select two grades of pressed sintered products to meet your needs.

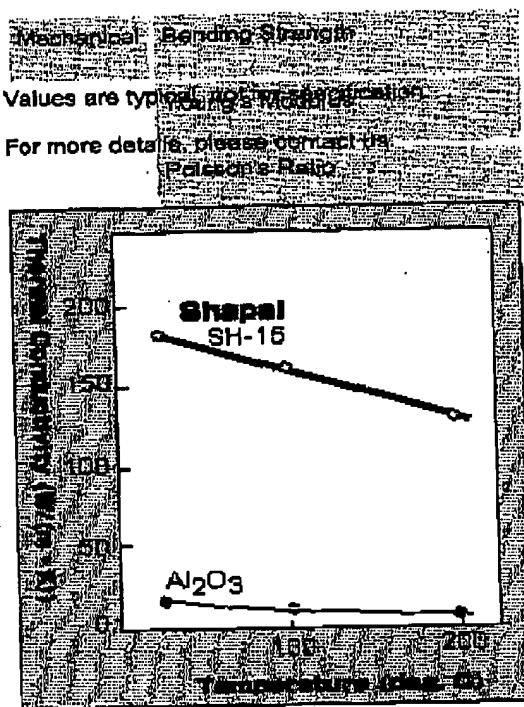
**Properties**

	Grade A	Grade B
General	Purity(Al-Ni-Na)	% >= 94.0 >= 99.0
	Purity(Al-Ni-Na-CO)	% >= 94.8 >= 99.9
	Density	g/cm <sup>3</sup> 3.33 3.24
Electrical	Volume Resistivity	Ω·cm 1.1x10 <sup>14</sup> 3.1x10 <sup>15</sup>
	Dielectric Constant (RT, 1MHz)	9.1 8.9
	Dielectric Loss (RT, 1MHz)	3.0x10 <sup>-4</sup> 2.8x10 <sup>-4</sup>
	Mechanical Strength	(kV/mm) 31.3 18.7
Thermal	Thermal Expansion Coefficient	(K <sup>-1</sup> ) 4.3x10 <sup>-6</sup> 3.9x10 <sup>-6</sup>
	Thermal Conductivity at 20°C	W/(m·K) 184 86
	Thermal Conductivity at 1000°C	W/(m·K) 159 -

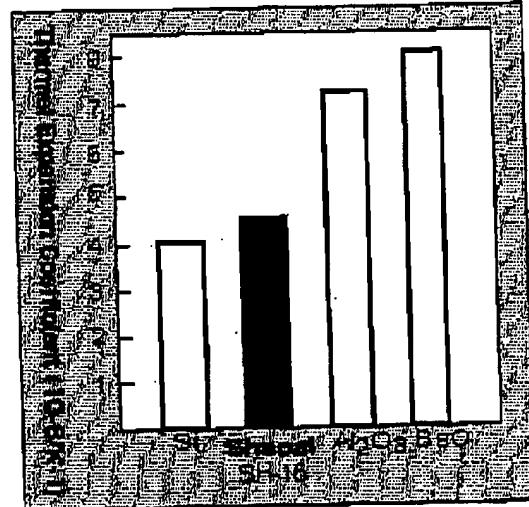
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**Fig 1:**  
**Thermal Conductivity by**  
**Temperature**



**Fig 2:**  
**Thermal Expansion coefficient.**